

undercurrent

The Private, Exclusive Guide for Serious Divers

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Castle Comfort Lodge, Dominica

a Caribbean dive and eco-tour feast at reasonable prices

IN THIS ISSUE:

Castle Comfort Lodge, Dominica.....	1
Will Her Breast Implants Explode Underwater?	3
Aegean Islands, Greece.....	5
Mexican Great White Risks .	7
California Declares Diving Hazardous	8
Researchers Face Charges for Giving Sheep DCS.....	9
The Risks of Oxygen	10
The Unprofessional Side of Placing Blame.....	12
Save the Whale Sharks	13
Finding Diver-Friendly Life Insurance.....	14
<i>Jacques Cousteau: The Sea King</i>	15
Flotsam & Jetsam	16

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Dear Fellow Diver:

The waters of Dominica have one of the better ranges of critters and corals in the Caribbean, but with the water filled with plankton and detritus from hourly rainfalls and therefore lousy visibility during my June week, you would have had to be one determined diver to find it. I did.

Dominica (pronounced Dome-i-NEE-kah) is an actively volcanic island midway in the Lesser Antilles island chain between Puerto Rico and Tobago. Its unspoiled character, rugged geography, waterfalls, lush rainforests and bird life draw as many tourists to its interior as to its reefs. Landing at Melville Hall airport near Marigot, on Dominica's northeast coast, means you'll taxi over pot-holed switchbacks through rain-forested volcanic highlands for 90 minutes to reach Castle Comfort Lodge, an aging two-story hotel with volleyball court-sized grounds overlooking the Caribbean Sea.

Dive Dominica is a basic operation with neither a dive shop nor a place to nurse a sick camera housing back to health. There is a gear rental room and a crowded gear storage room with first-come, first-served hanger and rack space. There's an outdoor showerhead, garden hose, gear rinse tank (filled fresh each morning but briny after the dive boats return) and a tank for cameras (decent all day). Next to a pair of kayaks, an eyesore of sloppy-looking cans and other items wasn't tidied up all week.

Sadly, owner Derek Perryman died unexpectedly of a heart attack at age 55 and was given a sea burial just weeks before we arrived. Derek was a genial fellow who, 20 years ago



Castle Comfort Lodge



at DEMA, cajoled *Undercurrent* staff to get a review, saying he didn't have the money to advertise and he was struggling. Little did he know that Ben Davison had already scheduled an anonymous trip, and a few months later enough of our readers showed up to put his unknown operation in the black.

Today, his wife Ginette, smiling daughter Arienne and cheerful son Daniel continue to run both the lodge and dive operation, with shyer younger brother Yannick helping out. While there was no formal briefing on the operation, Markus, a helpful young Dominican tending the rental gear, answered

all my questions. There would be a two-tank boat dive daily, starting at 8:30 a.m. and returning before 1 p.m. Afternoons were for shore diving, land excursions, walks into nearby Roseau, or chilling by the three-foot-deep wading pool. (On its website, the lodge calls this kiddie pool a "hot tub.")

The afternoon my spouse and I arrived, we joined a whale watching boat (\$50 per person), and within 20 minutes of leaving the dock, pantropical spotted dolphins leaped from the water and surrounded the boat, so many that our captain estimated their numbers at 300. The rest of the trip was a bust. We were the only two Castle Comfort guests on a boat with a tour group of 30 hard partiers. Stopping the boat to quietly scan the water with hydrophones was the party tour's cue to talk and laugh even more loudly, irritating the captain to no end. "I can't work under these conditions," he said to me.

The next day I was ready to dive, but when I poked my head under the water (which ranged between 79 to 85 degrees all week), I had no more than 30 feet of visibility. I consoled myself with photographing commoners like longsnout butterfly fish, social feather dusters and blackbar soldierfish, but I did shoot an uncommon red-banded lobster that adorns the front cover of Paul Humann's Reef Creature Identification, as well as many other "personal firsts," surprising since I've made hundreds of dives in the Caribbean.

That afternoon, I made two shallow solo dives in front of the lodge. Runoff from a nearby stream carried bits of dull brown vegetation that coated the boulder-covered bottom. Between hundreds of basketball- to kettle drum-sized boulders were sea urchins, and underneath most of them were nimble-spray crabs with meaty pinchers. Fire worms, yellowline arrow crabs, Pederson cleaner shrimp, delicate corallimorphs, disc-shaped cnidarians and many species of reef fish were here as well. Near the dock, anemones crawled with squat anemone shrimp. A watchman goby stood guard outside a burrowing shrimp's hole. When the goby was disturbed, it darted into the hole, warning the shrimp to button up. When the coast was clear, the goby took up its position and the shrimp continued its excavations. I found two batfish and once, after passing above a patch of garden eels, I found both a delicate Atlantic long-armed octopus performing a variety of poses and also a scaly-tailed mantis. Its huge, searchlight-like eyes followed me closely as I kept a respectful distance from this well-known "thumb-splitter." On the eve of a full moon, two spiny sea urchins were gently crossing their spine tips with each other. Suddenly, a puff of milky "smoke" emerged from the top of one of them, and I managed to capture a mating ritual, something special.

My boat dives were from the *MV Olga*, one of five boats owned by Dive Dominica. A 47-foot aluminum catamaran powered by twin 270-hp Cummins turbos, it can hold 24 divers, but when the head count got much above 12, a second boat was used. The dive site and safety briefings were thorough, and a full complement of safety gear was carried on board. One mask and one camera bucket were provided. Though we were told to be back on the boat in an hour, my dives lasted longer. Reginald, the serious 30-ish skipper a.k.a. "Stinger," took us to Champagne, where the volcanic action releases tickling bubbles of sulfurous gas. At a number of spots, the barrel sponges were so large and plentiful they rivaled Little Cayman, and the dropoff into the deep blue was just

as profound. The brilliant colors of the sponges and zoanthids, and the profusion of hydroids at sites like Swiss Cheese, Scott's Head Drop Off and the Pinnacles stood out even in the relatively low visibility. Giant basket stars, banded coral shrimp and many species of eel were prevalent. Not-so-common species included white nose pipefish, snapping shrimp, orange featherstar shrimp, batwing crab and nudibranchs.

On a guided night boat dive at Champagne, divemaster Kevin psyched us up for the possibility of an encounter with the Thing, an elongated segmented worm. Divemaster Inman, an eagle-eyed critter spotter, said that usually only the first person shining their light on it sees it, since it withdraws into its hidey hole immediately after being illuminated. True to Inman's prediction, Kevin spotted it but I missed it. No matter. On the face of a ledge, a swimming crab nestled near a beautiful orange ball corallimorph. In a large dark crevice, a channel clinging crab, whose carapace seemed a foot across, looked menacing. In the sandy shallows, a grass squid hovered. The best night dive ever, said an experienced diver. (All divers were American, about a third sported cameras and regardless of the murk, they raved about the diving.)

All our boat dives were in the protected waters of Scott's Head Soufriere Marine Reserve but fishing is permitted elsewhere. I saw four young men next to Dive Dominica's dock pull in a seine net some 30 yards in diameter, right next to my happy shore diving grounds. The next day, they cast their nets from Dive Dominica's dock. Daniel told me that fishing was not prohibited in most places, and for a resort to forbid it would both deny the local people their food and bring some retaliation, per-

Will Katie Price's Breast Implants Explode Underwater?

Ah, those British gossip tabloids. How fun they are. In April, the *Daily Star* reported that celebrity Katie Price, the British version of Pamela Anderson, was warned her surgically-enhanced breasts could explode if she went diving. Price was on vacation at the Red Sea resort Sharm el-Sheik and wanted to take a dive course but was told scare stories (we don't know by whom) about implants exploding underwater. The *Daily Star's* source said, "Given the risks, and how long she has spent perfecting her boobs, it is unlikely Katie will go ahead."

So do breast implants (or testicular implants on men) change size or explode from pressure underwater? Do they affect buoyancy? What happens to them after a dive or on the outbound flight? Richard Vann, vice president of research at Divers Alert Network, led a study two decades ago to find out. He placed breast implants in the hyperbaric chamber at Duke University Medical Center. (The study did not simulate the implant in human tissue.) He tested three types -- silicone-filled, saline-filled and an equal mix of the two -- and simulated four different no-decompression depth/time profiles between 40 and 120 feet. To simulate commercial air flight, the implants were subjected to 7,000 feet of altitude, a typical airline cabin pressure, then at 30,000 feet, as if cabin pressure were lost. To measure implants' volume change at sea level, Vann placed them in water and measured changes hourly for eight hours by weighing the water displaced by bubbles. To measure volume changes at altitude, he immersed implants in a water-filled container and measured the change in water level in a capillary tube.

Measuring implants at sea level after simulated dives, there was a small increase of one to four percent in implant volume in both saline and silicone gel implants, depending on depth and duration of the dive. Bubbles in saline implants coalesced into one large bubble, while between 12 and 50 flat bubbles formed in gel implants, the largest measuring only 2.5 centimeters in diameter. The least volume change occurred in the saline-filled implant, because nitrogen is less soluble in saline than silicone. The silicone-saline-filled type showed the greatest volume change. Altitude exposure at 7,000 feet increased the volume changes to as much as five percent, but that seems unlikely to cause distress for recreational divers during commercial air travel. At 30,000 feet, the increase in volume was four to twelve percent, still not very large. Thus, bubble formations leading to small volume increases don't seem likely to damage the implants or surrounding tissue. If gas bubbles do form in an implant, they resolve over time.

So Katie, your boob implants won't bust if you go diving. But avoid BCs with constrictive chest straps because they can put undue pressure on the implant seams and increase the risk of rupture.

"Mammary Implants, Diving and Altitude Exposure," by Richard R. Vann, Ronald Riefkohl, Gregory S. Georgiade and Nicholas S. Georgiade, Plastic and Reconstructive Surgery, February 1988.

Castle Comfort Lodge, Dominica

Diving (<i>experienced</i>)	★★★★
Diving (<i>beginner</i>)	★★★★
Snorkeling	★★★★
Accommodations	★★★
Food	★★★
Service and Attitude	★★★★
Money's Worth	★★★★★

★ = poor ★★★★★ = excellent
Caribbean Scale

haps in the form of having anchor lines cut in the dead of night. Hence, divers won't see bigger fish or schooling reef fish except in protected areas and spots affording natural protection (such as under docks).

I had hoped for the cuisine to match the bountiful fruits of the rainforest but it was expensive and more or less unremarkable. The breakfast plan meant you could have coffee or tea, a juice pitcher, and one course, like a two-egg omelet and a pancake substituting for toast. Lunch often consisted of rather boring pumpkin and ginger or calaloo soup, plus a cheese sandwich for \$US9; a cheeseburger with fries ran \$9.50. I passed on the dinner plan (\$30 per night) and went a la carte: a salad with pineapple and ham pizza (\$19), a fish or

chicken roti (\$8.25 each), or seafood dinner with a couple of Creole sides (\$32). Beer was \$3 for an 8.45 oz bottle for the local Kubuli; wine about \$7 per glass, and a cocktail \$6.50. We bought rum and wine at a local store for U.S. prices instead.

On the plus side, our small (9.5'x 14') room was clean, with a 13-inch TV and intermittent wireless internet access, but no table for a camera setup. I slept well on the king-sized bed, and the bathroom contained a roomy shower. There were a couple of 115-volt outlets, so with the multi-outlet adapter I always carry, battery charging was no problem. The AC was powerful enough to keep at bay the 85-degree days and 85 percent humidity. A pleasant balcony contained a table and a couple of chairs. The hotel provides plenty of potable water, yet some guests who ignored warnings regretted drinking the brownish tap water taken from the surrounding hills. Bring earplugs: On the weekends, music in the resort next door blares loudly way past midnight.

To get a taste of the nondiver's Dominica, we spent three days at the Papillote Wilderness Retreat. (We spent our last night at Calibishie Lodges Hotel so we'd be close to the airport in Marigot for our 7 a.m. departure.) Papillote perches on a beautiful mountain overlook, nestled among little streams and waterfalls that emanate from the waters that also feed Trafalgar Falls, a five-minute walk up the hill. The grounds were established with an artist's eye. We used our room with a view of the Roseau Valley as a base for guided land travel -- hiking to Middleham Falls, swimming up Titou Gorge (a site seen in Pirates of the Caribbean), spending time at Freshwater Lake, walking the trail at Syndicate Falls, visiting Fort Cabrits and taking a boat ride up Indian River. We had sundowners in one of Papillote's hot sulphur pools (the best being a hot-cool combo with a delicate double waterfall backdrop possessing feng-shui equal to anywhere else in the world), then each night, we enjoyed gourmet meals, the likes of which I've not seen elsewhere in the Caribbean. We dined on rabbit, tuna wrapped in banana leaves, christophin baked with cheese, freshwater prawns and an exceptional tart key lime pie. Owner Anne Jno Baptiste spun stories of her early days on the island (she had to rebuild and replant in 1979 after Hurricane David spun like a blender for three days in the Roseau Valley), while bats swooped through the open air terrace restaurant. In the morning, the guava juice, cocoa, banana pancakes and omelets made a lunch almost unnecessary.

So who should go to Castle Comfort Lodge and Dive Dominica? Divers whose needs for creature comfort are simple: no fancy buffets, no exercise rooms, no walks on a palm-lined beach, no lush on-premises landscaping, no dive shop, no shelves lined with tourist gimcrack. It's a great place to mix shore and boat diving with the chance to photograph interesting macro and other atypical marine life. Divers seeking more conventional digs with easy access to town often prefer the Fort Young Hotel. Regardless, it is a mistake for any traveler not to sample Dominica's rugged, unspoiled, natural beauty, unrivaled anywhere else in the Caribbean, St. Lucia being the possible exception.

My week was not just a dive vacation but a unique diving and rainforest vacation, unlike anything else the Caribbean offers.

-- S.P.



Diver's Compass: The seven-night dive package including breakfast was about \$900 for me and \$600 for my non-diving spouse, tax included, and airport transfers by taxi . . . Because the airport has no working runway lights, thus, no night landings, any flight delays after 4 p.m. with a connection out of Puerto Rico means you might spend a night in San Juan or an island like Antigua along the way; runway lights are being installed and may be operational by year's end . . . Weight limitations on LIAT were 15 pounds for the single carryon permitted, 50 pounds for one checked bag; to save weight, I brought my computer, mask and snorkel, and rented everything else for less than \$90 for the week . . . Nitrox was \$12 per tank, the night boat dive was \$65; wireless internet access was complimentary . . . A week's pass to Dominica National Parks was \$12 each, saving \$5 each on separate admissions to each park; Castle Comfort can recommend good guides for your trip . . . Hotel websites: www.castlecomfortdivelodge.com; www.papillote.dm

Aegean Islands, Greece

it's the wrecks and wine jugs, not the reefs

Before I left home, Ben Davison cautioned me that there weren't any reefs left in Greece's Aegean Sea, and certainly no significant fish life. He was right. But that's not why I ventured there. Greek diving is about wrecks both ancient and modern, fragments of ancient amphorae (wine or oil jugs) and unusual volcanic topography including caverns, swim-throughs and chimneys. And there are dive operations everywhere -- 180, according to one divemaster.

Through the World of Diving website (www.worldofdiving.com), I booked the Margarita, a 65-foot power sailboat billed as a 10-passenger "luxury yacht" and owned by Tim Monsul in New Jersey. Although \$1,990 for five nights was steep, the prospect of diving Greek islands in luxury was too tempting. The double cabin had a private shower and toilet, and we would dive different islands from the boat for four days, have breakfast and a lunch basket, use their dive gear (there is little room on the Margarita to rinse, dry and transport one's own equipment) with wetsuits for rent. Moreover, we'd get one night in a hotel before departure, then four nights in Santorini to dive at our own expense.

After I made final payment, Tim informed me that Greek diving laws had changed and we must use local operators. We could cancel, but otherwise the price remained the same and we would have to walk or get picked up by a local dive shop on each island for the diving. My buddy and I decided to stick it out, joining a 60-ish couple from the Midwest, an experienced female diver and novice male diver. Once on board, I discovered that two-person cabins were barely big enough for one person, and not standing up. (I'm used to dive boats, and this is not one of them.) When we realized there were five empty cabins, we asked the Captain if we could each have our own cabin. Had he not said yes, I might have jumped ship.

Tim's choice of dive operators in Lavrio, Antiparos and Kythnos was spot-on professional. On our first dive day, in Lavrio, near the tip of mainland Greece, Planet Blue Divers set the tone with a large, modern facility; PADI, NAUI, SSI and technical diving; and a one-person recompression chamber on the premises. Equipment was included, and we were offered Nitrox and 5mm wetsuits for the low 70s water at no extra cost. Its covered motorboat included two divemasters. Owner Kostas Thractides briefed us before we descended to the Apolonia 6, a cargo ferry at the 80-foot bottom bay, 25 minutes



from Lavri, "The ship went down 26 years ago when the captain either was drunk or fell asleep." Small wrasses and scissortail damsels flitted around black sponges, the only evidence of life on the rusting wreck. On 27-percent Nitrox, I explored the outside and the large propeller for nearly an hour. During our surface interval, we returned to the dive center for refreshments, then motored for 10 minutes to Macronisos Island. Except for the wreck, it was nearly an identical dive -- same 80-foot visibility, and same fish and black sponges but with the addition of small pink fluffy sponges.

Then aboard the Margarita to Kea, the first of three Cycladean islands we'd visit. The following morning, we met Kostas, who had motored 90 minutes from Lavrio. The first dive was Patris, an 1882 wreck off of

Koundouros Reef upon which it had crashed and landed on its side in two pieces at the 132-foot bottom. As the previous day, the only fish were wrasses and damselfish. After a long, chatty surface interval on Margarita, we dived Koundouros Reef. Same fish, colder water.

Aqua Team in Kythnos and Blue Island Divers in Antiparos maintained the standard but without the technical diving, Nitrox or recompression chamber. All dives were conducted after precise briefings in excellent English. At Hagios Sarantis, off of Kythnos, the big draw is ancient amphorae, the clay oil and wine jugs centuries old, some perhaps dating from pre-BC times. Piles of broken shards in the white sand may be of great interest to an historical buff, perhaps a bore to others. A moray hid near one, and the usual wrasses and damsels schooled around. After an hour-long surface interval on Aqua Team's dive boat, our second dive on Lone Reef began in six-foot swells. Very cold water and nothing to see except a cuttlefish.

At a quiet cove in Antiparos with Blue Island Divers, I descended to Bubble Reef. With my hands tucked away from red and yellow fire coral, I kicked over mini-canyons, boulders and the ubiquitous Neptune grass and mermaid's cups. Two-banded bream swam next to my buddy while he examined a sea mouse shell. I focused on a black and cream nudibranch on a sponge. I reveled in the peacock worms, slipper lobsters, rainbow wrasses, ornate wrasses, red sea stars and morays mouthing from nearly every big rock. In a small cave, schools of orange anthias and cardinalfish stared into my light. Blue Island Dovers owner Gary Gainesbury led us through volcanic chambers and chimney swim-throughs. While spiraling through one, I came nose-to-nose with a red hermit crab.

At Santorini, using Aegean Divers, I was excited to dive the massive caldera below Akrotiri, the famous ancient city destroyed by an earthquake in approximately 2,000 BC, as related by my Hungarian divemaster Zoli. My 44-minute dive reached 114 feet with over 1,000 feet more below me, much of it visible in the 90-foot visibility. I gaped at giant dolmens covered with sponges and algae and the occasional lavender nudibranch. The only fish, however, were damsels and wrasses at 27 feet and a dozen barracuda at 45 feet. Aegean Divers' boat, *Crazy Dreams*, was large and shady, stocked with plenty of water, sodas and chocolate croissants for dive intervals. Three divemasters shepherded 11 ability-grouped divers and snorkelers. Four dives cost \$185.

Margarita captain Vasili and deck hand Kostas capably handled the boat, and went out



The Margarita

of their way to meet our needs and fulfill our requests. As for meals, I was disappointed. I expected that breakfast and lunch would be offered, but only groceries were provided and we were expected to do our own cooking. Instead, every morning, I hopped off the boat and bought fresh bread loaves from the baker for our breakfast and lunch for less than \$5, augmented by the boat's fruit, peanut butter and jam. Dinners onshore, however, proved a great way to enjoy each island and averaged \$15 apiece. With one serious exception, though. The Midwestern couple ordered lobster and spaghetti, not on the menu but available by the kilo, and according to the waiter, it was one kilo minimum. No price was requested or quoted. The large lobster arrived whole and draped over enough spaghetti to feed an army. The bill: a shocking US\$100. After the trip, Tim Monsul called not only me but my dive buddy and the other couple to get feedback on improving future dive trips on the Margarita. From a consumer standpoint, I found that noteworthy.

Diving in June is good in that frequently we were the only divers. High season is July and August, when all of Europe goes on vacation and when the water temps are in the mid- to high 70s. However, locals told me the best conditions are in September, when the water is still warm and the tourists have gone. But, as you can tell from my experience, it's a rare diver who will walk away satisfied with Greek diving. Unless you have particular interest in diving the Cradle of Western Civilization, you should enjoy a tank or two at the most if you're here touring the splendors of this ancient land.

-- M.S.



Diver's Compass: The two hotels Tim booked for me worked well for location and amenities . . . In Piraeus, the Hotel Avra (about \$100 a night) was a two-minute walk from the train station, and provided a full breakfast, but the room stank like a ashtray . . . Hotel Drossos in Santorini (www.familydrossos.gr) is smoke-free, in walking distance of a dozen cafes and pubs, and provided free wireless for my laptop and a full breakfast . . . Rental cars are reasonable, about \$32/day, and are best for sightseeing in Santorini . . . Albatross Charters is a good site for selecting a yacht to cruise the Mediterrean (www.albatrosscharters.com) . . . Dive operators' web sites: Planet Blue Divers in Lavrio (www.planetblue.gr); Aqua Team in Kythnos (www.aquateam.gr); Blue Island Divers in Antiparos (www.blueisland-divers.gr) and Aegean Divers(www.aegeandivers.com) in Santorini.

<i>Margarita, Greece</i>	
Diving (<i>experienced</i>)	★★
Diving (<i>beginner</i>)	★★
Snorkeling	★★★
Accommodations	★★
Food (<i>ashore</i>)	★★★★★
Service and Attitude	★★★★★
Money's Worth	★★★
★ = poor ★★★★★ = excellent	
<i>World Scale</i>	

Mexican Great White Risks

dive operators take it to the extreme at Guadalupe Island

Reaching beyond the protective bars of a steel cage and placing your palm on the snout of a 2,500-pound great white shark is never recommended, but this is what happens at Guadalupe Island, west of Mexico's Baja California. That's not all. Cage-diving operators at Guadalupe have become so competitive that one is allowing divers to stand on top of cages, and another openly advertises allowing divers to venture completely outside

the cages to swim freely with the notorious predators. The bar has been raised so high that some believe it's only a matter of time before a person is killed. "It's an arms race and it's the worst example of one that I've ever seen," said Patric Douglas, who runs Shark Divers, a shark-related tourism, filming and consulting business. Cage diving is relatively new to Guadalupe Island -- there are six outfitters vying for the business of high-dollar, adventurous tourists -- but its evolution beyond the traditional stern-attached surface cages, which still exist, has been swift.

The so-called arms race began when Lawrence Groth of Shark Diving International started submersing cages to depths at which the sharks lurk -- about 50 feet -- so he wouldn't have to rely on "chumming" them to the surface with ground-up fish and blood (now illegal but still practiced by some). Groth also built a submersible "cinema cage" that has no sides, affording film crews unobstructed views but providing sharks with direct access to human flesh, if that's what they desire. Fortunately, they do not. Groth's latest invention is a horizontal two-person cage that "flies around like an airplane," with the client laying in front with a camera and Groth in back driving with a joystick. When informed that another operator has built a double-deck cage with no bars on the upper deck, Groth said, "I'll have to do a fly-by and check it out."

The crews yank the tuna away before the sharks can snatch them and this "makes the sharks crazy."

California Legislature Declares Diving "Hazardous"

Come January 1, scuba diving in California will be legally designated as a hazardous activity. A new law signed by Governor Schwarznegger is designed to release state and local governments from liability in lawsuits associated with diving. Surfing, water-skiing, windsurfing, kayaking and white-water rafting are also on the list.

"Fear of frivolous lawsuits has hampered efforts to expand recreational activities in many communities," says Assemblywoman Diane L. Harkey. The legislation was backed by California Ships to Reefs, a nonprofit organization that hopes to establish a regional system of reefed ships along the California coast. It was created with wreck diving in mind because "diving in and near sunken ships can be hazardous, requiring special training and equipment beyond that for normal scuba diving," Harkey said. Because the government will no longer be held liable in lawsuits in which a diver is injured or killed while diving, coastal communities may be more likely to create artificial reefs -- a benefit to both the marine environment and to divers interested in exploring them.

California Ships to Reefs chairman Joel Geldin said, "We are enthusiastic about the new unlimited opportunities to create a network of artificial reefs on the state's coastline, improving ocean life and enhancing our recreational diving and fishing industries."

-- based on a report by Kelly Burgess of the Los Angeles Times

The split-level cages are the brainchild of Mike Lever, who runs the *Nautilus Explorer*, a luxury live-aboard with a hot tub from which divers can warm up after their chilly cage dives and watch sharks circle the boat in gorgeous blue water with 100-foot visibility. Divers in these submersible cages can enjoy the company of white sharks from behind steel bars or scamper upward, with experienced dive masters, to stand atop a deck for an open-water experience. "It is an unforgettable rush when a great white looks at you from 50 feet away and then swims over for a very close look," says Daniel Dayneswood, who works for the *Nautilus Explorer*, which is based in British Columbia. Now the *Nautilus Explorer* has added a suspended cage. With its bottom sitting at 25 feet, it sits between the submersible and the surface cages, and has an enclosed ladder leading up the stern, so passengers -- who don't have to be scuba certified to get inside it -- can spend as little or as much time in it as desired.

But the daring does not end here. A relative newcomer to Guadalupe is Amos Nachoum, who has raised the bar to what some might consider the ultimate level. Nachoum, a famous photographer and outfitter who runs Big Animal Expeditions, openly advertises outside-the-cage opportunities and charges what some might consider an arm and a leg: \$5,900 for a week-long trip. Nachoum, whose trips are aboard a 110-foot La Paz, Mexico-based vessel named *Sea Escape*, says he takes only "qualified

Researchers Face Criminal Charges for Giving Sheep the Bends

If it's rats being tested for the bends, that's one thing. If it's sheep being tested, the researchers doing it could go to jail. That's what nine staffers at the University of Wisconsin-Madison face. They could be jailed or pay heavy fines for carrying out decompression experiments on sheep in hyperbaric chambers for the U.S. Navy. The testing was done to gain more information about DCS, but in the extreme conditions used by researchers to invoke DCS, the sheep can experience severe pain in various parts of their bodies, and death.

The researchers presented their latest findings at the Undersea & Hyperbaric Medical Society's annual meeting in June. Over the years, they've studied oxygen pre-breathing as a means to reduce or prevent DCS. In this study, they looked at the effect of interrupting oxygen pre-breathes with an air break. Ten adult sheep were put in a decompression chamber at 60 feet for 24 hours, given an oxygen pre-breathe for three hours, followed by a "dropout decompression" at 30 feet per minute to surface. Another 10 sheep underwent the same procedure with a one-hour air break before decompression. After surfacing, all sheep were observed for signs of DCS. A month later, bone scans and IV injections look for effects of bone injuries. While all sheep survived the decompression, all 10 in the air break group got bends in their limbs within 10 minutes of surfacing, and three of those

developed respiratory DCS. In the group without an air break, eight sheep got the bends within two hours of surfacing. Whether the sheep died or were killed afterwards isn't mentioned in the paper but the researchers' last step was to perform necropsies of the sheep, and they found severe bone injuries.

Two animal rights groups, PETA and the Alliance for Animals, led the charge against the researchers, filing a suit after they discovered that Wisconsin has a law banning the killing of animals through decompression. In June, Judge Amy Smith backed their claims. She concluded that the researchers "intentionally or negligently violated Wisconsin law," and appointed a special prosecutor to determine whether they should face criminal charges. Smith dismissed the university's defense that the research project was exempt from the law, noting that numerous sheep have died in its experiments since 1988 and the researchers likely "knew some sheep would die from decompression, or that there was a substantial and unreasonable risk of such a death."

The university said it stopped doing the experiments when they became aware that they may be violating state law, but it's working to get the law changed so they can continue doing the decompression experiments.

-- *Vanessa Richardson*

individuals" but other operators claim Nachoum's idea of a qualified individual is anyone who shells out the money for one of his trips.

"He's new to the whole thing," says Groth, a pioneer at Guadalupe Island who himself has been referred to as a "cowboy" using questionable tactics. "He has an inexperienced boat crew, and he's doing this stupid stuff with anyone who will pay him the money."

Lever believes Nachoum's operation is an accident waiting to happen. "What concerns me is that someone outside the cage gets freaked out by a shark, and it's easy to get freaked out by a shark; I've been freaked out by them," Lever says. "So what happens when you're at mid-water on scuba gear and you get freaked out and panic? If that person bails to the surface, what kind of reflex are they going to trigger in that animal? And then that person is on the surface thrashing, and then what happens?"

White sharks are not bloodthirsty killers. They're generally very cautious around divers. Other operators have let veteran film crews outside the cages for brief periods, always flanked by dive masters who look for any changes in the sharks' behavior. If a shark becomes even remotely aggressive, divers are ordered back into the cages.

Nachoum maintains that he's as cautious as the sharks. He only runs one trip a year to Guadalupe, and only takes 10 people. Only half of them even want to venture out of the cages, he says. Those who do must have extensive scuba experience and must bring lawyer-signed and notarized documents stating they're aware of the risk of death and serious injury. The expedition leader adds that he only allows one diver at a time to venture outside, only after he has gone outside and feels comfortable in the presence of the shark or sharks

in the area. A second dive master swims behind the customer with a stick to push the shark away if it gets too close. (These sharks can measure 18 feet and weigh 3,000-plus pounds.)

Groth and Lever say what Nachoum is doing is illegal. Nachoum says other operators -- he did not name them -- are in violation for using whole tuna attached to ropes to lure sharks to surface cages and inspire them to open their mouths for camera-toting passengers. The crews yank the tuna away before the sharks can snatch them and this, Nachoum says, “makes the sharks crazy.”

What’s legal and illegal is largely moot because Guadalupe is 160 miles from the Baja California peninsula and enforcement of any rules is difficult, though the Mexican navy makes a sporadic inspection. Mostly it’s up to the operators to watch each other, and they do so suspiciously. One thing they all agree on is that if a shark does kill someone, Mexico might kick everyone out and close what is arguably the world’s premier white shark-diving destination. That, they say, would remove the operators’ watchful eyes and open the island to poaching, which would decimate the sharks. So it’s in everyone’s best interest -- though it hardly seems that way -- to keep their customers alive.

Pete Thomas is a former Los Angeles Times reporter specializing in outdoor recreation and action or lifestyle sports. This article is reprinted with permission from Thomas’ website (www.petethomasoutdoors.com).

The Risks of Oxygen at Increased Depth

what you better know if you’re diving with Nitrox

Having been engaged in a discussion with a number of readers on *Undercurrent’s* bulletin board, I’ve become aware of many misconceptions about the real risks related to central nervous system (CNS) oxygen toxicity and the rather benign effects of longer-term “low dose” exposure. Because so many divers use Nitrox these days and therefore are exposed to higher oxygen partial pressures than they would be with regular compressed air, it’s important they understand the basic elements of oxygen physiology. There are real risks if limits are not observed, but they are

There are many misconceptions about the real risks related to central nervous system oxygen toxicity, and the effects of longer-term “low dose” exposure.

relatively small and difficult to attain within normal diving ranges and practice. More often than not, unwarranted panic over slightly exceeding a depth can lead to excessive ascent rates, buddy abandonment, or other bad behavior when little risk will actually manifest. It’s a confusing subject and bears some more in-depth discussion.

As divers, we must be concerned primarily with the effects of elevated partial pressures of oxygen that occur as we descend. It’s the partial pressure of oxygen (PO₂) that is most critical, not the percentage of oxygen in a mix.

Dalton’s Law of Partial Pressures

The total pressure exerted by a gas mixture is equal to the sum of the partial pressures of the components of the mixture (oxygen and nitrogen in the case of air or Nitrox), i.e., $P = P_1 + P_2 + P_3$ (“P” stands for each individual gas in the total mix), etc. Put simply, as your depth increases, there is a corresponding increase in the partial pressure of oxygen. At the surface we are naturally adapted to PO₂ at .21 atmospheres absolute (ATA).

For air, the PO₂ at a 66-foot depth in the ocean is expressed as .63 ATA of O₂. This is derived from multiplying .21 (the percentage of O₂ in air) by the pressure in ATAs: $.21 \times 3 = .63$ ATAs of O₂. Though the percentage of O₂ in

the air we breathe will remain constant, the PO₂ will increase with depth. Therefore, when breathing compressed air at 66 feet, we are breathing in three times as much oxygen as we did on the surface.

The Hazard

The CNS is primarily affected in the acute phase, meaning a relatively but high PO₂ exposure. Predictable results will follow if oxygen limits are exceeded. You can use the acronym VENTID to help remember the CNS O₂ toxicity symptoms

- * Vision: any disturbance including “tunnel vision,” etc.
- * Ears: any changes in normal hearing function
- * Nausea: severity may vary and be intermittent
- * Twitching: classically manifest in facial muscles
- * Irritability: personality shifts, anxiety, confusion, etc.
- * Dizziness: vertigo, disorientation

Even a cursory examination of these effects should illustrate the seriousness of a CNS O₂ hit in deep water. Onset and severity of symptoms do not follow any particular pattern, and may vary daily in an individual diver. There may be no warning from less serious symptoms before a full convulsion is precipitated.

Oxygen convulsions, per se, are not inherently harmful but imagine the implications for an untended diver, or even one with a buddy nearby. Management of a patent airway and subsequent rescue in such an extreme situation is nearly impossible, and the diver will almost certainly drown.

Managing Oxygen Exposure

Back in 1971, when I worked on Navy diving projects, the P_{O₂} limit was commonly accepted to be 2.0 ATA. Over the years, this was backed off to nearly universal recommendation now of 1.6 ATA, which is the equivalent of 132 feet of depth if you are using Nitrox-32. Yes, you have probably read conservative recommendations to keep your P_{O₂} under 1.4, or even 1.3, but there have been no incidents of oxygen toxicity at 1.6 as long as the time limits are properly observed. The DAN Nitrox Workshop held in November 2000 (I was on the faculty along with other industry experts) universally concluded that a P_{O₂} of 1.6 was an appropriate operational limit for sport divers, thus ending an ongoing controversy.

However, understand that the partial pressure of oxygen only makes up part of the equation for oxygen “dose.” The other variable is time, usually expressed in minutes at a particular P_{O₂}. NOAA has published a table (below) that allows quick reference for divers to plan exposures.

NOAA PO₂ AND EXPOSURE TIME LIMITS FOR WORKING DIVERS:				
NORMAL EXPOSURE LIMITS				
Oxygen Partial Pressure (PO ₂) in ATA.....	1.6	1.5	1.4	1.3
Maximum Duration for Single Exposure in Minutes	45	120	150	180
Maximum Total Duration, 24-Hour Day, in Minutes.....	150	180	180	210

While the potential hazard of CNS oxygen toxicity cannot be underestimated, the good news is that the risk to sport divers is almost nonexistent if the NOAA limits are observed since there has never been a sport diving oxygen incident within the NOAA limits.

The “oxygen dose” is sometimes referred to as the “oxygen clock,” which implies the time limits with the P_{O₂}. Your Nitrox dive computer stores this information in its memory (along with changeable P_{O₂} settings), and will calculate your exposure. This is usually

expressed as a percentage of the maximum dose rather than in a minute “count down” like remaining bottom time. If your diving practice is to avoid decompression, you will never approach the CNS dose limits because your no-deco

time limit will always occur first. Because most divers tend to dive in multi-level profiles and don't spend the entire dive at the maximum PO₂, the actual "oxygen clock" rarely will even reach 20 percent of the dose limit.

Note that there is no more danger with a 50-percent exposure to oxygen at 1.6 than there is with a 50-percent exposure at 1.4 or 1.3. It's the total dose, not the PO₂, that determines your risk factor. It's this distinction that seems to lead to a lot of the confusion and rather absurd suggestions for increased conservatism.

Other Considerations

Susceptibility to oxygen toxicity is increased by other factors. These include elevated carbon dioxide levels caused by hard working conditions or prolonged swimming efforts. Sport divers typically do not approach the exertion levels of actual working divers for which the NOAA/Navy limits were defined.

In fact, most divers swim lazily around the reef or wall, stopping to take photos or simply take in the sights. The most active part of the dive usually occurs at the beginning or end, where some higher swimming exertion happens

The Unprofessional Side of Placing Blame

Over the years, we have helped resolve disputes between divers and the industry if the diver's claim seems reasonable. The discussions have been professional, and most businesses, after discussing the case with us, settle in the customer's favor to maintain goodwill. When we received a subscriber's complaint that two of his bags went missing aboard the *Belize Aggressor*, we expected a similar discussion. Instead, we got an earful from *Aggressor* president Wayne Hasson about how the guy was not telling the truth and maybe even dumped the bags overboard himself.

Eric Ressner (St. Louis, MO) and his wife were aboard the *Belize Aggressor* in February and told us that on the last night onboard, Captain Marc Povey told passengers to leave their packed bags on the dive deck. "I was uneasy, but Povey said it would be perfectly safe and everyone else was leaving stuff there." The next morning, two of Ressner's three duffel bags were missing; they had contained his wife's dive gear and both their wetsuits (but not his dive gear). Initially, the crew thought another passenger had mistakenly taken their bags. The Ressners were on their way to Belize's interior, so Povey said he would get in touch after trying to find the other passenger, and submit a police report Ressner could file an insurance claim.

Ressner heard nothing from Povey, so he eventually emailed Hasson, who sent him Povey's report. Turns out Povey didn't believe the bags were stolen, and questioned why no one else's were missing. In fact, he doubted whether the Ressners really had lost much. "The bag ... was virtually empty and could not have contained the items listed in Eric's email. Their other bags were not full either and they could easily have consolidated the bags."

Ressner's homeowner's insurance paid him the depreciated value, minus his \$1,000 deductible, so Ressner asked the *Aggressor* Fleet to reimburse him \$1000, but they only agreed to credit him \$1000 for a future trip. Hasson told us that not only does every *Aggressor* boat have a sign saying it is not responsible for lost or stolen gear, it is also clearly stated in the customer packet. Fair enough. But he then went on to say, "We investigated and we think he threw his gear overboard. Their stuff was older and used; maybe they wanted new stuff."

Ressner believes someone came up by boat and slid the two bags off the *Aggressor*, but the *Aggressor* people say that theft was impossible and, as Hasson seems to believe, Ressner just deep-sixed his wetsuits and wife's dive gear (though keeping his) in port when the trip was over. But why even go there? Ressner says, "We were far more upset by the attitude of Captain Povey in this report than by the actual loss. We are frankly soured on the *Aggressor* Fleet now and may never do business with them again. I also wonder why they would want us aboard when to them, we are liars and frauds."

Of course, it would have made sense to ascertain the truth by strapping on a tank and scouring the shallow bottom where the *Aggressor* moors in Belize City. It would have also made sense not to cast aspersions on customers. Hasson recently felt the repercussions of his words. In 2003, when two divers went missing off the *Cocos Aggressor* and the search was still being conducted, Hasson was quoted in local newspapers as blaming the divers for their deaths and even pointed a finger at one diver's buddy, his 19-year-old daughter. One family sued Hasson personally for intentional infliction of emotional distress and eventually settled out of court.

descending against current, traveling to the starting point, or swimming back to the boat or shore. And this is typically in shallower depths where the PO₂ is so low as to be inconsequential. Divers, as a population, really don't work very hard. A lot of overly shrill cautions about reducing PO₂s came from those who had an incomplete understanding of how divers actually dive and what the Navy and NOAA limits were designed for in their original applications.

PO₂s will obviously need to be lowered if your dive plan will exceed 45 minutes at 1.6 ATA. But for you folks on single-cylinder, open circuit scuba, whether breathing air or Nitrox, it is virtually impossible to reach the "dose" time limits.

Breathe Easy

Oxygen has certain well-defined risk windows. But the hazards are easily avoidable by ensuring that your dive profiles observe the NOAA limits. Set your PO₂ at 1.6; watch your computer display your "dose" accumulation, and do not exceed the maximum depth limit for your Nitrox mix. The depth limit for a 1.6 PO₂ exposure on 32-percent Nitrox is 132 feet. If you go deeper, you will not spontaneously combust or go into seizures. But your time limit at increased depths will reduce.

As a general rule, I do suggest observing the 1.6 level for PO₂, but don't panic if you briefly go deeper. Your computer will account for it. And most importantly: breathe in, breathe out, repeat as necessary.

You may also have heard divers refer to tracking their OTUs (oxygen tolerance unit). This refers to another form of oxygen toxicity that occurs on very long exposures at relatively low PO₂s. This is primarily a consideration for saturation divers or dealing with patients in recompression chambers. It is impossible for open circuit divers to attain sufficient OTU dose to serve any practical discussion. If you observe CNS limits, OTUs take care of themselves.

You don't have to take a day off from diving midweek to allow for "oxygen out-gassing," as one reader was told. As Tony Soprano might say, "Fuggitabout it."

Bret Gilliam is a 40-year veteran of the professional diving industry. He founded Technical Diving International (TDI) and crafted the standards and procedures for training nitrox divers for that agency. He is extensively published on the subjects of nitrox, mixed gas, rebreathers, technical diving, oxygen physiology, and emergency treatment for divers in recompression chambers and in remote areas where evacuation is not an option. He is credential as a Recompression Chamber Supervisor and Diver Medical Technician.

Save the Whale Sharks

help them adapt to their new home

For several years, Undercurrent has raised money from our subscribers and donated funds to Seacology, a nonprofit organization that puts its money to work to save the reefs. We have contributed to the building of a school in Fiji and in return, the villagers stopped fishing along a sizeable stretch of reef. We purchased an outboard motor so rangers could patrol a marine preserve in Belize. Seacology's executive director, Duane Silverstein, has developed some excellent projects, and here's another we think our readers should know about . . . as well as a tip on a good guide to take you to where the whale sharks swarm.

* * *

I went to Mexico to play with dominoes, or for the uninitiated, swim with whale sharks. You see, due to the many white spots that mark their gray bodies, the nickname for whale sharks in Mexico is "dominoes." At up to 48 feet in length and 25 tons, whale sharks are the world's largest fish. Comparatively little is known about them because there are not large numbers of them left in the oceans, and for much of the year they are solitary animals.

Finding Diver-Friendly Life Insurance

In our June issue, we wrote how life insurance companies often charge divers high rates. Because they consider divers to lead “risky” lifestyles, they knock them out of the running for a Preferred or Standard policy, which have lower rates, and qualify them only for the pricier ones.

But *Undercurrent* subscriber Michael Horbal (Newtown, PA), owner of Life Insurance Advisors, wrote in to say that there are actually some life insurers with good reputations that are more competitive on rates and will consider divers for policies without charging extra.

“In the past two years, some companies have loosened up their requirements for divers who go deeper than 100 feet (they’re not looking at the standard open-

water certification you got with a 130 foot maximum, but what’s the average depth you go to while diving).

“Genworth Financial Company will offer Standard rates for divers who go to 125 feet. John Hancock will go to 120 feet on a case-by-case basis. How they’ll offer the rate is by considering whether you’re an experienced diver who dives regularly and has your own gear, not if you’re a honeymoon diver who does his dives at Sandals in Jamaica. And if you qualify medically, John Hancock will give you its Standard rate.”

Horbal says Life Insurance Advisors has helped 200 divers get better rates, and that he routinely checks rates offered by the handful of companies that underwrite divers. If you’re seeking a competitive policy quote, contact Horbal (he promises no obligation and no pressure) at www.lifeinsuranceadvisors.com/scuba-diving.html.

Less than 10 years ago, marine biologists discovered that the world’s largest aggregation of whale sharks takes place from June to September near Holbox Island, off of Mexico’s Yucatan Peninsula northeast coast. In fact, *Undercurrent* broke this story in its October 2004 issue. There has been one significant change since then. Though several whale sharks can still be seen near Holbox, the largest whale shark aggregation can now be found one hour north of Isla Mujeres, or three hours by boat from Holbox Island.

I recently visited Mexico to snorkel with these mighty creatures. By law, this experience is for swimming and snorkeling only; no diving allowed. Our guide was Rafael de la Parra (grampusr@hotmail.com). Rafael used to work with whale sharks for the conservation arm of the Mexican government. He has participated in whale shark tagging and research for many years. Rafael and his son, Emilio, are great people, great guides and speak fluent English. Unlike other tour operators, Rafael only charters his boat for groups of 2 to 10 for the total price of \$700.

For several weeks before our July trip, Rafael gave me reports on whale shark sightings. One day he would see 30, the next perhaps 100, and then none. So we had a mix of excitement and trepidation when Rafael picked us up in his boat from our hotel on Isla Mujeres for the 80-minute ride to the whale shark aggregation area. But our worrying was for naught. When we arrived, we counted 170 “dominoes” from our boat. This blew our minds until we came back the next day and counted more than 300. It took us all of 30 seconds to don our snorkel masks and fins and slide into the water. We were surrounded by whale sharks in every direction. All we had to do was wait until a few swam by us. This never took long because whale sharks are filter feeders and must always keep swimming with their very wide mouths open, both to eat and force water by their gills so they can utilize the oxygen.

Other than following us with their small eyes, the whale sharks seemed oblivious to our presence, often swimming just a few feet away. Occasionally while looking in one direction, I would turn around in the water to find a whale shark only inches away, which was rather startling. Rafael yelled down from his boat, “Welcome to my office!”

Indeed, after spending two days with these fantastic fish, I knew my organization, Seacology, must help them survive and flourish. Rafael explained that huge cargo ships come by this area several times a week, sometimes striking the slow-moving creatures. You see, the area does not contain demarcation buoys warning ship captains to stay clear of the vulnerable whale shark population in the water. Rafael wants to deploy a

series of large state-of-the-art demarcation buoys, complete with GPS transponders, to warn ships to stay clear. Once these buoys are deployed, official navigation charts would also denote the area as a whale shark reserve.

Rafael suggested that if Seacology could come up with half of the funds required for this project, many of the local hotels and whale shark tour operators could match this contribution. One doesn't have to be an expert in dominoes to connect the dots to know this would be a worthwhile effort.

If you would like to help protect these gentle giants, visit the Seacology website at www.seacology.org and indicate your donation for the whale shark buoy project. Whale sharks are listed on the International Union of the Conservation of Nature's Red List of Vulnerable Species, meaning their future is in danger.

Jacques Cousteau: The Sea King

Scuba diving has not had a hero since the irreplaceable Jacques Cousteau died. Some graybeards still point to Mike Nelson, but he was a fictitious 1960s TV hero, not flesh and blood, unless you consider the actor who played him, Lloyd Bridges. Besides, the last episode of *Sea Hunt* aired 49 years ago, in 1961.

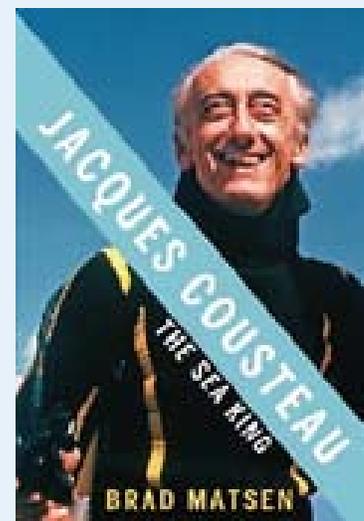
Cousteau himself has been dead nearly 44 years but he left a profound legacy for every last soul on our water planet. For us divers, he was extraordinarily special, a man whose every TV production we welcomed into our homes. In fact, I fantasized that one day Jacques would invite me to join the *Calypso* crew and sail the oceans. Of course, I never got that invitation, but I did get to meet with him once, as a direct-mail fundraising copywriter, drafting letters for him to sign to acquire new members for the Cousteau Society. He was committed, full of hopes and dreams, surely inspiring to write for. We raised a lot of money for his work, but from the outside, I slowly watched the Society crumble in the 90s. It's a sad story, one of many tales told in *Jacques Cousteau: The Sea King*, the excellent new book by Brad Matsen.

Cousteau struggled through the last years of his life – he wasn't finding buyers for his films, and his family was in uproar when he revealed he had kept a mistress in France, with whom he had two children, while his wife lived aboard the *Calypso*. While Matsen reveals the Captain, warts and all, he brings to life his two exceptional accomplishments: the development of diving gear, and his enormous talent for making films that brought the oceans and its creatures into the collective conscious of mankind. One has no doubt that had there been no Jacques Cousteau, who charmed Ted Turner, the National Geographic Society and others to bring his work to television, our oceans would be in far worse shape. It was no easy task, and Matsen brings us the inner details of negotiating contracts, preparing for voyages and going to sea for Cousteau's film adventures.

Divers will especially appreciate the first third of the book, which focuses on the young Cousteau and his burning desire to capture the sea on film. In the late 1930s, he began filming with an 8mm camera inserted into a fruit jar. Two years later, as a member of the French navy, he worked with others to develop an existing demand regulator and a rebreather, and during most of World War II, he invented and further refined diving apparatus after the French recognized its military potential. After the war, he and his companions, Phillippe Talliez and Frederic Dumas, joined an August Piccard bathyscape expedition, and eventually his photos made it to *Life* magazine, which led to an \$11,000 contract for four documentaries, and a gift from a member of the Guinness family to help him refit an American minesweeper, which he rechristened the *Calypso*. Matsen goes into great detail about Cousteau's development of diving and photography equipment, his outfitting the *Calypso*, and the traumas and joys of his next decades aboard his beloved crafts. It's a great tale of the sea.

Matsen's book (hardbound, 320 pages) is a must-read for any diver. You can order the book via Amazon (it's also available on Kindle) by going to www.undercurrent.org and clicking on our *Sea King* book review, and whatever profit *Undercurrent* accrues from the sale will go to support saving our seas.

-- Ben Davison



Flotsam & Jetsam

“Peter Hughes” is Now “Dancer Fleet.” We wrote in the June issue about Peter Hughes leaving his namesake liveaboard business behind. This month, new owner Wayne Brown officially changed the Peter Hughes name to Dancer Fleet. The new website is www.DancerFleet.com, but the reservations number is still the same at 800-932-6237. If you want to reach Peter Hughes instead, he is now managing the *M/V Galapagos Sky* (formerly the *Sky Dancer*). The boat is heading into dry dock for regular maintenance but you can get info on future trips at www.divencounters.com.

Indonesia’s Hard-Hit Reefs. Coral around the world is at risk but some of the worst news is coming out of Indonesia. The Wildlife Conservation Society says rising water temperatures have created a large-scale bleaching event in almost all parts of the country. The hardest hit is divers’ favorite Wakatobi islands in the Indonesian province of Sulawesi, where around 35 percent of corals have turned white. Malaysian officials recently closed off 12 reefs to divers and snorkelers until November so the coral can recover from coral bleaching (yeah, fat chance.) Meanwhile, those warm waters from Southeast Asia are heading into the North Pacific, with Hawaii as their next likely destination.

A 50-Hour Dive. Ivan Zhelezarov, a 27-year-old diving instructor, has broken the world record for the longest scuba dive in salt water by spending 50 hours submerged. Zhelezarov started his attempt on August 27, going down 26 feet near Kiten on Bulgaria’s Black Sea coast, and staying underwater -- even though conditions were at times “severe” -- before emerging at 4 p.m. on August 29. During his time underwater, he took food in liquid form, and was supported by a nine-member team. No word on who had the thankless task of washing out his wetsuit, but you can be certain he wouldn’t be allowed to board Captain Charlie’s boat in Maui, where no peeing in wetsuits is allowed.

Divers Doing Drugs. British researchers surveyed 434 divers (67 percent males and 33 percent females; age range 13 to 70). Seventy-six percent reported regularly consuming alcohol, and 10 percent smoked cigarettes. Twenty-one percent of the divers, ages 16 to 59, had used one or more recreational drugs since learning to dive; these included barbiturates, tranquilizers, amphetamines, cocaine, ecstasy, LSD, cannabis, heroin and magic mushrooms. In the last 12 months, 3.5 percent had used recreational drugs in the last 12 months, and 3 percent in the last month. The researchers note that recreational drugs change metabolic functions, perception of reality, distance and time, thus increasing the risk of an incident while diving.

Tough Guy Actor Scared of Snorkeling. Ving Rhames is the bad-ass actor who promised to “get medieval” in *Pulp Fiction*, and backed up Tom Cruise in the *Mission Impossible* movies. But apparently some little creature freaked him out so badly that he refuses to go snorkeling or diving ever again. While snorkeling the Great Barrier Reef, he saw what looked to him like a prehistoric-looking monster. “It was a combination of a catfish and something with an oblongish-type head,” he told World Entertainment News Network. “It came toward me, and I froze, and it just went away. I haven’t done any scuba diving since, either.” Any guesses to what could have scared Rhames, let us know. Ironically, his latest movie is the horror film *Piranha 3D*.

Big Decline in Diving. Every year, the Sporting Goods Manufacturing Association releases its study on the state of sports participation in America. In the latest 64-page report, watersports participation has not fared well over the last nine years: jet skiing (down 18.5 percent), wakeboarding (down 21.5 percent), scuba diving (down 36.7 percent) and water skiing (down 44.5 percent) have seen massive declines. Looks like we’re going the way of rollerblading, which is down 62.2 percent in the past nine years.

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